

## CLAIMS

What is claimed is:

1. An indenting tool comprising:

a shank having a tip end;

a diamond affixed to said tip end by a braze material, said diamond forming a point of the tool; and

said diamond being mounted to said tip end within 8 degrees of a <17,12,24> direction.

2. An indenting tool according to claim 1, wherein said shank is formed from at least one of a hardened tool steel, stainless steel, and a cemented carbide.

3. An indenting tool according to claim 1, further comprising a head formed adjacent a second end of said shank.

4. An indenting tool according to claim 3, wherein said head is wider than said shank.

5. An indenting tool according to claim 1, wherein said diamond is a single crystal diamond.

6. An indenting tool according to claim 1, wherein said diamond is a single crystal diamond nearly free of defects.

7. An indenting tool according to claim 1, wherein said diamond comprises a synthetic single crystal diamond.

8. An indenting tool according to claim 1, wherein said diamond in a final ground state has a length greater than an indentation depth to be imparted to a part to be marked.

9. An indenting tool according to claim 1, wherein said diamond has a 90 degree included angle conical point.

10. An indenting tool according to claim 1, wherein said diamond has a 120 degree included angle conical point.

11. An indenting tool according to claim 1, wherein said braze material comprises a brazing alloy which wets both said diamond and the material forming said shank.

12. An indented tool according to claim 1, wherein said tip end of said shank is tapered.

13. An indenting tool comprising:

a shank having an end;

a diamond secured to said end in a wear resistant orientation; and

said wear resistant orientation being within 8 degrees of a  $\langle 17, 12, 24 \rangle$  direction.

14. A method of making an indenting tool, comprising the steps of:

providing a shank having an end;

providing a diamond;

positioning said diamond in a wear resistant orientation;

securing said diamond to an end; and

said positioning step comprising positioning said diamond in a wear resistant orientation of within 8 degrees of a  $\langle 17, 12, 24 \rangle$  direction.